

**REMARKS**

Claims 1-5, 9 and 11-13 are all the claims pending in the application. The examiner has maintained the rejection of all claims over prior art. Reconsideration of the application and allowance of all claims are respectfully requested.

Claims 1-3, 5 and 9 are rejected as unpatentable over Kobayashi et al in view of Kato and further in view of Vernooij. This rejection is respectfully traversed.

According to the invention of claim 1 there are two different accesses on different physical mediums, each access having a plurality of information channels and a signaling channel. While the signaling channel of the second access (the “additional signaling channel”) would ordinarily be for use only in conjunction with the information channels of that second access, according to the present invention this second access signaling channel is for use in conjunction with at least one of the information channels of the first access. According to the feature recited in the last two lines of claim 1, the “additional signaling channel” in the second access is formed from a channel which can be an information channel of the second access.

In rejecting claim 1, the examiner relies on Kobayashi to teach the provision of first and second accesses (physical cables 30a and 30b in Fig. 10) on different physical mediums (physical cables 30a and 30b in Fig. 10). The examiner asserts that the first physical cable 30a has a plurality of information channels and at least one signaling channel, referring to lines 17-21 of col. 2, and he similarly asserts that the second physical cable 30b has a plurality of information channels and at least one signaling channel, referring to lines 15-21 of col. 11. It is submitted that the examiner is in error. Lines 17-21 of col. 2 simply describe the existence of a

shared common signaling channel, but there is no mention of where that common signaling channel is located. Lines 15-21 of column 11 discuss the operation of an ATM switch but there is no mention of where a common signaling channel is located.

What in fact is described in Kobayashi et al, e.g., as summarized at lines 45-60 of column 3, is a signal common signaling channel 2 between the exchange 3 and the exchange 4, and a mechanism for varying the capacity of that one common signaling channel. The concept implemented by Kobayashi et al is illustrated in Fig. 6, and described in the paragraph bridging columns 6 and 7, is that there is a part of a cable that is always used for speech channels, a part ("steadily maintained region" 42) that is always used for a common signaling channel, and a part ("temporarily maintained region" 43) that can be used for either and can thereby be used to temporarily increase the size of the signaling channel when not needed by the speech channels.

The embodiment of Fig. 10 is described beginning at line 41 of column 10. There are two cables 30a and 30b, with a part of the cable 30a is set aside as the "steadily maintained region" of the common signaling channel, and a part of the cable 30b being reserved for a "temporarily maintained region." While not explicitly stated, it is clear from the described operation that there is also a "temporarily maintained region" in the cable 30a. In the operation described in the paragraph beginning at line 4 of column 11, when the capacity of the common signaling channel needs to be increased, this will be done using unused and available capacity in the cable 30a, and if there is not enough available in the cable 30a then the capacity in the "temporarily maintained region" of the cable 30b will be used.

Claim 1 requires two different signaling channels, one on a first access and one in a second access. Kobayashi et al discloses only single common signaling channel. It is

implemented using channel capacity on two different cables, but it is a single common signaling channel.

Kato is relied on by the examiner to teach determining an order of priority of the use of signaling channels, and assigning the highest priority functional signaling channel to the first access. Accepting only for purposes of discussion here that Kato does indeed teach this, it would not have been obvious to adopt this feature in Kobayashi et al because Kobayashi et al does not have plural signaling channels, only one. The part of the cable 30b in Kobayashi et al that is available for use to increase the capacity of the common signaling channel cannot be assigned a priority for use. It is not a common signaling channel by itself. It is merely channel capacity that can be used by the one common signaling channel. The “temporarily maintained region” in the cable 30b cannot be functional as a signaling channel separate from the signaling channel in cable 30a, and there is no logic to “assigning the highest priority functional signaling channel to the first access” as is required in claim 1.

The examiner does further state at the bottom of page 4 of the Office action that it would have been obvious to provide another signaling channel, but there is certainly no suggestion of this in Kobayashi et al. The examiner broadly supports the assertion by arguing as to why different physical media would make sense, and applicant disagrees with the stated logic, but the important point is that the reasoning only goes to the logic of different physical media, and there is no reason for Kobayashi et al to have two different signaling channels in the first place. And importantly, if there were two separate signaling channels provided, it is hindsight to conclude that they would have been provided in the manner recited in claim 1. Separate signaling channel in cable 30b would have been used for the information channels in cable 30b. A temporarily

maintained region in cable 30a would be used to increase the capacity of the signaling channel in cable 30a, and a temporarily maintained region in cable 30b would be used to increase the capacity of the signaling channel in cable 30b. There is no reason to believe that, when the temporarily maintained region in cable 30b is needed to be available for increasing capacity of the signaling channel in cable 30b, it would still be available for use by the signaling channel in cable 30a.

In sum, claim 1 requires two different accesses each including a plurality of information channels and a signaling channel, and there is no separate signaling channel in the cable 30b of Kobayashi et al, only channel capacity that can be used when needed to increase the capacity of the one signaling channel provided in Kobayashi et al. Claim 1 requires the assigning of priorities, and this makes no sense in Kobayashi et al because there is no separately functional signaling channel in the cable 30b. Claim 1 requires the assigning of the highest priority functional signaling channel to the first access, but the “temporarily maintained region” in the cable 30b can never be a separate functional signaling channel, so this makes no sense at all. Kato make teach prioritizing signaling channels, but Kobayashi et al does not have plural signaling channels to prioritize.

The dependent claims 2, 3, 5 are due to their dependence on patentable claim 1. In addition, these claims recite additional details which are further nonsensical in the combination proposed by the examiner. Claims 3 and 9 further emphasize the prioritizing of signaling channels and the constant monitoring of the highest priority signaling channel even when it is not in use. This does not make sense in Kobayashi et al where there is only a single signaling channel. Further, as to claim 3, the examiner argues that it would have been obvious to monitor

the signaling channel because for it to be not in service it has to first be determined to be inoperative. But this misses the point. Claim 3 recites that it is regularly tested when it is not in service, i.e., this is testing that is performed regularly after the signaling channel has been determined to be inoperative and some other signaling channel has been substituted. This is simply not shown in the art.

Claim 9 requires that each access have B and D channels, and that a B channel of the second access is converted to the additional signaling channel. The Background discussion of Kobayashi et al makes it clear it is applicable to ISDN, and B and D channels are a necessary part of ISDN, but there is no discussion of B and D channels in each of the cables 30a and 30b. The cables are treated together as a pool of capacity, and certain portions of that capacity are designated by the controller, on an as-needed basis, as the D channel. To satisfy claim 1, cable 30b would have to include a D channel *and* a B channel that is converted to an additional signaling channel, but this is clearly not disclosed.

Vernooij is relied on to teach the conversion of a B channel to a D channel, but does not make up for the basic deficiency of Kobayashi et al and Kato in failing to teach other subject matter, e.g., claim 9 requires that the cable 30b of Kobayashi et al include a D channel in addition to the B-channel that is converted, as discussed above.

Claims 4 and 11-13 are rejected as unpatentable over Kobayashi et al in view of Kato and further in view of Barnes. This rejection is also respectfully traversed.

First of all, claim 4 is similar to claim 1 in reciting the provision of plural signaling channels, the prioritizing of those signaling channels, and the assigning of the highest priority signaling channel to the first access, and Kobayashi et al does not have plural signaling channels

but only a single signaling channel, it is not possible to assign priorities to the signaling channel portions of each of the cables 30a and 30b because the signaling channel portion of the cable 30b is only used to temporarily increase the capacity of the signaling channel by adding to the signaling channel portion of cable 30a, so the signaling channel portions of cable 30b would never be used *instead of* the signaling channel portions of the cable 30a.

Second, Kobayashi does exactly the opposite of what is recited in the last three lines of claim 4. When the signaling channel is congested, Kobayashi et al increases the capacity of the signaling channel. That is the entire purpose of the Kobayashi et al invention. Modifying it so that it would instead decrease inhibit information channels would defeat the entire purpose of Kobayashi et al invention and could not have been an obvious modification.

Regarding claims 11-13, the examiner discusses these claims at pages 9-10 of the Office action but repeatedly refers to Kobayashi, Kato and Kim, although Kim is no relied on in rejecting the claims so it is unclear what the basis is for the rejection of these claims. In addition, the examiner acknowledges that the art does not teach the subject matter of these claims, but merely alleges that it would have been obvious to render a subset of channels unavailable for setting up calls, providing no explanation as to why this would have been obvious even though directly contrary to the basic purpose of the primary reference.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

REQUEST FOR RECONSIDERATION  
U.S. Application No.: 09/736,298

Attorney Docket No.: Q62303

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,

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**23373**

CUSTOMER NUMBER

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